

## FY2011 Department of Defense

**Item:** Advanced Multifunctional Materials for Soldier Support and Protection  
**Request:** \$5,000,000  
**Account:** RDT&E, Army (RDA)  
**Line:** 27  
**PE:** 0602786A  
**Suggested Recipient:** University of Maine  
**Suggested Location of Performance:** Orono, ME  
**Purpose/Project Description:** Funding would be used for development of overhead protection systems for shelters; integration of photovoltaic solar panels into ballistic panels for remote electrical power generation and overhead protection; development of lightweight conformal solar cell technology for soft sided shelters such as airbeam tents; and development of light weight, high performance panels suitable for overhead ballistic protection and new threat levels.

**Item:** Cellulose Nanocomposites for Army Infrastructure and Troop Protection  
**Request:** \$5,000,000  
**Account:** RDT&E, Army  
**Line:** 25  
**PE:** 0602784A  
**Suggested Recipient:** University of Maine  
**Suggested Location of Performance:** Orono, ME  
**Purpose/Project Description:** Funding would provide for the development of low-cost, high-performance cellulose nanocomposites.

**Item:** Cellulosic Hydro-Treated Renewable Jet Fuels  
**Request:** \$3,000,000  
**Account:** RDDW  
**Line:** 44  
**PE:** 0603712S  
**Suggested Recipient:** University of Maine  
**Suggested Location of Performance:** Orono, ME  
**Purpose/Project Description:** Funding would be used to develop integrated forest products refinery processes and technologies to efficiently and cost-effectively replace petroleum-derived JP-8 with woody biomass alternatives to support Department of Defense compliance with governing energy policy acts and executive orders.

**Item:** Chemical/Biological Infrared Detection System  
**Request:** \$5,000,000

**Account:** RDDW  
**Line:** 14  
**PE:** 0602384BP  
**Suggested Recipient:** Orono Spectral Solutions, Inc.  
**Suggested Location of Performance:** Orono, ME  
**Purpose/Project Description:** Funding would be used to continue the development of a functional prototype of a miniaturized Chemical/Biological Infrared Detection System.

**Item:** Civil Air Patrol  
**Request:** \$4,500,000  
**Account:** O&M, Air Force  
**Line:**  
**PE:**  
**Suggested Recipient:** Civil Air Patrol  
**Suggested Location of Performance:** Nationwide  
**Purpose/Project Description:** Funding would restore \$4,500,000 to the Civil Air Patrol's (CAP) FY2011 O&M budget, which was cut by the President. The funds allow CAP to conduct essential programs at the same level of service as in FY2010. Restoration of these funds will maintain CAP's readiness by providing the needed resources for its essential missions.

**Item:** Conformal Coded Chip Capacitor  
**Request:** \$1,900,000  
**Account:** Procurement, Defense Wide  
**Line:**  
**PE:** PE-0902199D8Z  
**Suggested Recipient:** DM Technologies, LLC  
**Suggested Location of Performance:** Sanford, ME  
**Purpose/Project Description:** Funding would develop and produce a conformal coated chip capacitor, which is a critical technology item for high growth defense applications such as radar systems for Joint Strike Fighter, GATOR and the Patriot Missile system.

**Item:** Design Optimization of Composite High-Speed Boats using  
Advanced Composite Manufacturing and Non-Destructive  
Evaluation  
**Request:** \$2,000,000  
**Account:** RDN  
**Line:** 5  
**PE:** 0602123N  
**Suggested Recipient:** Hodgdon Defense Composites, LLC  
**Suggested Location of Performance:** Portland, ME  
**Purpose/Project Description:** Funding would be used to conduct R&D to reduce structural weight for high-speed composite craft through the use of lightweight composite materials. This program will build off the expertise gained in the successful Reliability of Composite Program,

MAKO composites craft program, and workforce development programs in Maine to address new requirements for Special Operations Craft.

**Item:** F-16 Block 42 Engine Upgrades  
**Request:** \$33,800,000  
**Account:** Aircraft Procurement, Air Force  
**Line:** 30

**PE:**

**Suggested Recipient:** Pratt & Whitney/United Technologies

**Suggested Location of Performance:** North Berwick, ME

**Purpose/Project Description:** Funding would be used to procure six more engines, completing the programmed buy of 53 installed and spare engines and fully equipping both ANG fighter wings. The engine upgrade provides the F-16 Block 42 with a 20 percent improvement in thrust along with significantly improved durability, reliability and survivability. The direct impact on the Warfighter is better payload, range, and lower life cycle cost. This project is mutually beneficial to U.S. Military and over 1500 residents of Maine who have jobs at the North Berwick plant where the engine components are built.

**Item:** F-119 Engine Spares  
**Request:** \$160,000,000  
**Account:** Aircraft Procurement Air Force  
**Line:** 3

**PE:**

**Suggested Recipient:** Pratt & Whitney/United Technologies

**Suggested Location of Performance:** North Berwick, ME

**Purpose/Project Description:** Funding would be used to acquire additional spare F-119 engines for the Air Force. Additional spare engine orders need to be procured in FY11 prior to the F-119 production shutdown. Procuring fifteen spare F-119 engines in FY11 will extend F-119 production to FY12 and provide sufficient time for the PRS model to rerun and requirement refined spare requirement to be determined. This project is mutually beneficial to the military and over 1,500 residents of Maine who have jobs at the North Berwick plant where the engine components are built.

**Item:** Formable Textile for Complex Shaped Aerospace  
**Request:** \$2,000,000  
**Account:** RDN  
**Line:** 16

**PE:** 0603123N

**Suggested Recipient:** Pepin Associates, Inc.

**Suggested Location of Performance:** Greenville, ME

**Purpose/Project Description:** Funding would be used to provide infrastructure to support production of light-weight composite structural components.

**Item:** Fuel Efficient, High Specific Power Free Piston Engine for USSVs  
**Request:** \$3,000,000  
**Account:** RDT&E, Navy (RDN)  
**Line:** 0602123N  
**PE:** 5, Force Protection Applied Technology  
**Suggested Recipient:** Applied Thermal Sciences  
**Suggested Location of Performance:** Sanford, ME  
**Purpose/Project Description:** Funding would enable further development of the HiPerTEC free-piston engine to demonstrate a 50 percent fuel efficiency increase over today's diesel engines, along with a 10 times increase in specific power to meet the Navy need of maximizing range and endurance, to significantly enhance platform performance and mission capabilities.

**Item:** Hybrid Heavy Lift Transport  
**Request:** \$2,500,000  
**Account:** RDN  
**Line:** 27  
**PE:** 0603216N Aviation Survivability  
**Suggested Recipient:** Integrated Systems Solutions, Inc. (ISSI)  
**Suggested Location of Performance:** California, MD  
**Purpose/Project Description:** Funding will be used to support a U.S. Navy research and development project to engineer, design and test key components and achieve a Critical Design Review of a very large hybrid aircraft that could be used as a heavy lift transport in wartime. The project will help to address the U.S. military's future airlift shortfall by providing a highly-efficient hybrid airlifter that will be able to transport a complete combat force (troops, vehicles, helicopters, and supplies) great distances without loss of unit cohesion or physical readiness to fight.

**Item:** Installation Management Command, Non-Tactical Vehicle,  
Service Life Extension Program  
**Request:** \$5,000,000  
**Account:**  
**Line:**  
**PE:**  
**Suggested Recipient:** Maine Military Authority  
**Suggested Location of Performance:** Limestone, ME  
**Purpose/Project Description:** Funding would be used for a non-tactical vehicle refurbishment program facilitated by the Maine Military Authority (MMA) and Installation Management Command (IMCOM).

**Item:** LGX High Temperature Acoustic Wave Sensors  
**Request:** \$3,000,000  
**Account:** RDT&E, Air Force

**Line:** 4  
**PE:** 0602102F  
**Suggested Recipient:** University of Maine  
**Suggested Location of Performance:** Orono, ME  
**Purpose/Project Description:** Funding would provide for the continued investigation of fundamental sensor materials and device design concepts as well as demonstrate functional prototypes of acoustic wave sensors that will be tested under realistic high temperature operating Air Force environments.

**Item:** M2 50 Cal Machine Gun MODS  
**Request:** \$6,000,000  
**Account:** W&TCV, Army  
**Line:** 37  
**PE:**  
**Suggested Recipient:** General Dynamics Armament and Technical Products (GDATP)  
**Suggested Location of Performance:** Saco, ME  
**Purpose/Project Description:** Funding would provide an additional \$11,000,000 for procurement of M2A1 Quick Change Barrel (QCB) Kits to support elimination of operational safety concerns and enhance the capabilities and effectiveness of the M2 Machine Gun.

**Item:** Maine Institute for Human Genetics and Health  
**Request:** \$4,370,000  
**Account:**  
**Line:** 30  
**PE:** 0603002A  
**Suggested Recipient:** Eastern Maine Health Systems  
**Suggested Location of Performance:** Brewer, ME  
**Purpose/Project Description:** Funding would be used for researching several priority areas of interest to the Department of Defense, including better understanding health risks and discovering diagnostics to improve veteran care and understand active duty risks.

**Item:** Mission Helmet Recording System  
**Request:** \$3,500,00  
**Account:** 181ON (Other Procurement Navy)  
**Line:** 117  
**PE:** 0204424N  
**Suggested Recipient:** Wilcox Industries Corporation  
**Suggested Location of Performance:** Newington, NH  
**Purpose/Project Description:** Funding would be used to procure EOD-Mission Helmet Record Systems to provide a superior capability for the Explosive Ordnance Disposal community, the Joint Improvised Explosive Device Defeat Organization (JIEDDO), the Combined Explosive Exploitation Cell (CEXC), and the National Intelligence Community.

**Item:** MK47 MOD 0 Advanced Lightweight Grenade Launcher (ALGL)  
**-** USSOCOM  
**Request:** \$5,000,000  
**Account:** Procurement, Defense-Wide, SOF Small Arms Weapons  
**Line:** 75  
**PE:**  
**Suggested Recipient:** General Dynamics Armament and Technical Products (GDATP)  
**Suggested Location of Performance:** Saco, ME  
**Purpose/Project Description:** Funding would provide an additional \$8,000,000 for continued production of MK47 ALGL for key USSOCOM units.

**Item:** New England Defense Manufacturing Supply Chain Initiative  
**Request:** \$5,000,000  
**Account:** O&M, Army  
**Line:**  
**PE:** 123207  
**Suggested Recipient:** Maine Manufacturing Extension Partnership  
**Suggested Location of Performance:** Augusta, ME  
**Purpose/Project Description:** Funding would support the New England Defense Manufacturing Supply Chain Initiative, which will create or retain up to 200 defense manufacturing jobs in New England.

**Item:** Protection Using Ballistic Core Technology  
**Request:** \$4,200,000  
**Account:** RDA  
**Line:** 2  
**PE:** 0601102A  
**Suggested Recipient:** Tex Tech Industries  
**Suggested Location of Performance:** North Monmouth, ME  
**Purpose/Project Description:** Funding would be used to enhance protection against fragmentation from blasts. The ballistic material provides improved protection for U.S. Soldiers, law enforcement personnel, vehicles, military aviation fuel tanks and buildings.

**Item:** Random Obfuscating Compiler Anti-Tamper Software  
**Request:** \$2,500,000  
**Account:** RDDW  
**Line:** 155  
**PE:** 0605790D8Z  
**Suggested Recipient:** Angel Secure Network  
**Suggested Location of Performance:** Orono, ME  
**Purpose/Project Description:** Funding would provide for further development of anti-tamper software for use in operational Department of Defense systems.

**Item:** Rapid Data Management System (RDMS)  
**Request:** \$750,000  
**Account:** O&M, Army National Guard  
**Line:** 121  
**PE:**  
**Suggested Recipient:** Global Relief Technologies, Inc.  
**Suggested Location of Performance:** Portsmouth, NH  
**Purpose/Project Description:** Funding would be used to improve the Rapid Data Management system, which is an integrated solution combining near real-time field reports, state-of-the-art mobile computing systems, satellite communications and a web-based central operations center that provides disaster response managers with the information required to coordinate a successful response.

**Item:** Real Time Test Monitoring of Chemical Agents, Chemical Agent Stimulants and Toxic Industrial Chemicals  
**Request:** \$1,000,000  
**Account:** RDT&E (Defense Wide)  
**Line:** 104  
**PE:** 0604384BP  
**Suggested Recipient:** Scientific Research and Development, Inc.  
**Suggested Location of Performance:** Orono, ME  
**Purpose/Project Description:** Funding would be used to advance Department of Defense individual and collective protection and decontamination initiatives. Funding would permit the completion of an on-going R&D effort to finalize development of a next-generation chemical monitoring system and allow the fielding of a complete monitoring system at the Dugway Proving Ground.

**Item:** Regenerative Medicine Research  
**Request:** \$2,200,000  
**Account:** RDA  
**Line:** 28  
**PE:** 0602787A  
**Suggested Recipient:** Mount Desert Island Biological Laboratory  
**Suggested Location of Performance:** Salisbury Cove, ME  
**Purpose/Project Description:** Funding would be used to expand Mount Desert Island Biological Laboratory's Department of Defense sponsored research and development activities within its Center for Regenerative Biology and Medicine. The purpose of these research activities is to further understand and control the mechanisms involved in limb, neuronal and tissue regeneration by studying primitive organisms that have the ability to regenerate their limbs during adulthood. These studies will provide insights into why humans have lost this capacity, and improve clinical treatments for service personnel suffering from combat-related injuries.

**Item:** Research Airship  
**Request:** \$5,000,000  
**Account:** RDN  
**Line:** 73  
**PE:** 0603925N  
**Suggested Recipient:** SAIC/Telford  
**Suggested Location of Performance:** Limestone, ME  
**Purpose/Project Description:** Funding would be used for a pilot optional lighter than air research airship platform to conduct scientific research to support NAVSEA Science & Technology programs and the Office of Naval Research. The LTA airship research platform provides a lower cost option for a variety of types of research as well as providing a slow stable platform advantageous to conducting certain types of research that would otherwise be unable to be performed.

**Item:** RipTide Amphibious UGV Weaponization  
**Request:** \$4,000,000  
**Account:** RDA, Army  
**Line:** 17  
**PE:** 0602624A  
**Suggested Recipient:** Howe and Howe Technologies  
**Suggested Location of Performance:** Waterboro, ME  
**Purpose/Project Description:** Funding would be used to develop a new generation of amphibious assault vehicles.

**Item:** Smart Valve Automatic Fire Suppression System  
**Request:** \$4,000,000  
**Account:** Other Procurement, Navy  
**Line:** 6  
**PE:**  
**Suggested Recipient:** Portland Valve  
**Suggested Location of Performance:** South Portland, ME  
**Purpose/Project Description:** Funding would be used to procure and install Smart Valves to realize an Automatic Fire Suppression System on DDG-51 class of ships as part of the DDG modernization program.

**Item:** Warfighter Interoperability Technologies  
**Request:** \$1,800,000  
**Account:** RDT&E Defense Wide  
**Line:** 61  
**PE:** 0603826D8Z  
**Suggested Recipient:** Technology Systems, Inc.  
**Suggested Location of Performance:**



**Purpose/Project Description:** Funding would be used for the adaptation of the Warfighter Interoperability Technologies Program. There are currently situational and marine navigation systems aboard small Navy Expeditionary ships which have facilitated situational awareness and enhanced operator capabilities by providing a common operation picture. This project will extend the capability to provide COP to new domains including dismounted personnel and new platforms and systems.

The following requests are to maintain the FY11 President's Budget request:

**Item:** DDG-1000 Destroyer Shipbuilding Program  
**Request:** Support the President's Budget  
**Account:** SCN, DDG-1000  
**Line:** SCN 010/BLI 2119  
**PE:**

**Suggested Recipient:** General Dynamics Bath Iron Works

**Suggested Location of Performance:** Bath, ME

**Purpose/Project Description:** Funding would support the President's budget request for end costs to complete program funding for the three Navy DDG-1000 destroyers funded in prior fiscal years. The DDG-1000 Class ships will bring major advances in warfighting capability to the Fleet and will support the transfer of important new technologies to other Navy programs.

**Item:** DDG-51 Destroyer Shipbuilding Program  
**Request:** Support the President's Budget  
**Account:** SCN, DDG-51  
**Line:** SCN 012/BLI 2119  
**PE:**

**Suggested Recipient:** General Dynamics Bath Iron Works

**Suggested Location of Performance:** Bath, ME

**Purpose/Project Description:** Funding would support the President's budget request for the procurement of two FY11 DDG-51 AEGIS Destroyers and Advance Procurement (AP) funding toward the procurement of additional DDG-51s planned to be procured between FY12 and FY15.

**Item:** Lightweight .50 Caliber Machine Gun (XM806)  
**Request:** Support the President's Budget  
**Account:** W&TCV, Army  
**Line:** 23  
**PE:**

**Suggested Recipient:** General Dynamics Armament and Technical Products (GDATP)

**Suggested Location of Performance:** Saco, ME

**Purpose/Project Description:** Funding would maintain the FY2011 President's Budget request of \$18.941 million to procure a quantity of 350 XM806 Lightweight .50 Caliber Machine Guns.

**Item:** Machine Gun, Cal .50 M2 ROLL  
**Request:** Support the President's Budget  
**Account:** W&TCV, Army  
**Line:** 22  
**PE:**  
**Suggested Recipient:** General Dynamics Armament and Technical Products (GDATP)  
**Suggested Location of Performance:** Saco, ME  
**Purpose/Project Description:** Funding would maintain the President's budget request of \$79.486 million to procure M2 .50 Caliber Machine Guns.

**Item Name:** Defense Commissary Agency commissary store, Topsham, Maine  
**Request:** Legislative and report language  
**Account:** Not applicable  
**Line:** Not applicable

**Item Name:** Navy Exchange Service Command store, Brunswick, Maine  
**Request:** Legislative and report language  
**Account:** Not applicable  
**Line:** Not applicable

*Legislative language:*

**SEC. \_\_\_\_ OPERATIONS AT NAVY EXCHANGE SERVICE COMMAND STORE, BRUNSWICK, MAINE.**

(a) CONTINUATION OF OPERATIONS THROUGH FISCAL YEAR 2011.—

(1) IN GENERAL.—The Secretary of the Navy shall operate the Navy Exchange Service Command store in Brunswick, Maine, through September 30, 2011.

(2) PROHIBITION ON REDUCTION IN SALE OF GOODS.—The Secretary shall not take any action to reduce or to terminate the sale of goods at the Navy Exchange Service Command store referred to in paragraph (1) during fiscal year 2011.

(b) OPERATION TO ASSESS PROFITABILITY OF STORE.—Commencing January 1, 2011, the Secretary shall operate the Navy Exchange Service Command store referred to in subsection (a) for a period of not less than one year in a manner designed to provide for a determination of the profitability of the store.

(c) REPORT ON MANAGEMENT OF STORE.—

(1) REPORT REQUIRED.—Not later than February 1, 2011, the Secretary shall submit to the congressional defense committees and to the Comptroller General of the United States a report on the management of the Navy Exchange Service Command store referred to in subsection (a).

(2) ELEMENTS.—The report under paragraph (1) shall include the following:

(A) Financial statements of the store for the five fiscal years ending on September 30, 2010.

(B) A description and analysis of constraints to achieving profitability for the store on a per year basis during the five calendar years ending on December 31, 2010, if profitability for the store was not achieved during such calendar years.

(C) A projection for future profitability for the store during the five calendar years beginning on

January 1, 2011, including pro forma financial statements for that period and a detailed discussion of the financial, operational, and other assumptions through which such pro forma statements were developed.

(D) A full description and assessment of management actions required to achieve profitability for the store during the period of assessment under subsection (b) and during the four following calendar years, including such recommendations for legislative or administrative action to enhance the profitability of the store during such five years as the Secretary considers appropriate.

(E) A discussion of the financial implications for the operation of a combined exchange and commissary store of the actions described under subparagraph (D).

(F) Such other matters as the Secretary considers appropriate.

(d) COMPTROLLER GENERAL REPORT.—Not later than April 1, 2011, the Comptroller General of the United States shall submit to the congressional defense committees a report setting forth an audit of the report submitted under subsection (c), including an analysis of the elements in the report and such recommendations regarding the matters covered by the report as the Comptroller General considers appropriate.

*Accompanying report language:*

**Operations at Navy Exchange Service Command store, Brunswick, Maine (Sec. \_\_\_\_ )**

The committee recommends a provision that would prohibit the Secretary of the Navy from closing the Navy Exchange Service Command store located in Brunswick, Maine in fiscal year 2011. In addition, the provision would require the Secretary of the Navy to operate the Navy Exchange Service Command store located in Brunswick, Maine, for a one-year period, to begin January 1, 2011, to establish profitability of the store following the closure of Brunswick Naval Air Station and to submit a report to the congressional defense committees and to the Comptroller General of the United States on management practices implemented by the Navy to establish profitability at the Navy Exchange Service Command store located in Brunswick, Maine. The provision would also direct the Comptroller General to audit the report of the Secretary of the Navy.

According to a Department of the Navy July 1, 2009 memorandum on Department of the Navy Evaluation of Commissary and Exchange Support at NAS Brunswick, Maine, the Navy will cease operations of the Navy Exchange Service Command store located in Brunswick, Maine, in March 2011. The committee notes that (1) there are servicemembers who are assigned to an active duty mission at the Navy Supervisor of Shipbuilding, Conversion, and Repair Command, as well as other military activities in the Brunswick-Bath-Topsham community, who receive a valuable portion of their compensation benefit from the Navy Exchange Service Command store located in Brunswick, Maine; (2) these military activities will remain operational after the closure of Brunswick Naval Air Station; and (3) to cease operation of the exchange store would eliminate, or degrade the value of, an integral component of compensation for servicemembers and their families for their service to the Nation. The committee notes Defense Department guidelines clearly delineate a process to determine whether to continue independent exchange operations or a combined exchange-commissary store on a closed installation, to include a one-year test period to establish profitability, which was not conducted by the Navy. In addition, the committee notes the poor quality of the financial analysis included

in the Navy July 1 2009 memorandum. Therefore, a more disciplined and rigorous analysis, as provided in this section and consistent with Defense Department guidance, will more effectively inform decision making on future operations of either an independent military exchange store or combined commissary-military exchange store in the Brunswick-Bath-Topsham community.